

ABOUT THIS MAP

Baird's beaked whale (*Berardius bairdii*)

Cuvier's beaked whale (*Ziphius cavirostris*)

Mesoplodont beaked whales (*Mesoplodon* spp.)

Limited sighting data were available in the CDAS data set (1980-2003) for beaked whales. But since these beaked whale species occur in the study area, a map of available sightings in CDAS (Figure 4.25) was included to indicate their presence in the study area and the three central California National Marine Sanctuaries. Due to insufficient data, it was difficult to identify spatial and temporal patterns of distribution.

See additional maps for these species in Figure 4.30, from NOAA's Southwest Fisheries Science Center stock assessment surveys (July-December, 1991, 1993, 1996 and 2001). These maps provides additional information on the range of the species off the coasts of California, Oregon and Washington.

Due to the rarity of sightings, species of beaked whales in the study area have been grouped. Data in the CDAS central California data set (1980-2003) used in this analysis included sightings of Baird's beaked whale (*Berardius bairdii*), Cuvier's beaked whale (*Ziphius cavirostris*), and unidentified beaked whale (*Mesoplodon* spp). Baird's beaked whales are distributed along continental slopes and throughout deep waters of the North Pacific; Cuvier's beaked whale is the most commonly sighted beaked whale in U.S. West Coast waters (Carretta *et al.*, 2006); and Mesoplodont species are distributed along continental slopes and throughout deep waters in the North Pacific Ocean. Six species known to occur off Washington, Oregon and California are: Blainville's beaked whale (*M. densirostris*), Perrin's beaked whale (*M. perrini*), Lesser beaked whale (*M. peruvianus*); Stejneger's beaked whale (*M. stejnegeri*), Ginkgo-toothed beaked whale (*M. ginkgodens*), and Hubbs' beaked whale (*M. carlhubbsi*) (Carretta *et al.*, 2006).

Beaked whales are among the least understood marine mammals and most of the current knowledge of beaked whales is based on studies of stranded specimens (Cox *et al.*, 2006). See Cox *et al.*, (2006) for a review of several recent mass strandings that have led to suggestions that exposure to

anthropogenic sounds negatively affects beaked whales.

Beaked whale sightings were widely scattered and occurred to the north of Cordell Bank National Marine Sanctuary, within the boundaries of the Gulf of the Farallones and Monterey Bay national marine sanctuaries, and to the west and south of these sanctuaries, in shelf-slope and deep ocean habitat. The sightings indicated on the map only confirm that beaked whales have been sighted in the study area and in a specific sanctuary; rather than a real absence from an area or time period, the absence of sightings of a species reflects insufficient survey effort.